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09/943,560	08/30/2001	Ronald P. Doyle	RSW920010127US1	2546

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EXAMINER

ZHONG, CHAD

ART UNIT	PAPER NUMBER
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2152

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/943,560

Applicant(s)

DOYLE ET AL.

Examiner

Chad Zhong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 1-35 are presented for examination.

Applicant's arguments with respect to claim 1-35 have been considered but are moot in view of the new ground(s) of rejection.

#### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 35 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Computer readable program code is non-statutory subject matter.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371 (c) of this title before the invention thereof by the applicant for patent.

3. Claims 1-3, 11, 16-17, 20-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Terretta et al. (hereinafter Terretta), US 2001-0027491.

4. As per claim 1, Terretta teaches a method of efficiently serving content in a distributed computing environment, comprising steps of:

receiving usage metrics for a particular stored object ([0075], wherein the health metrics based on

usage information is being monitored by item 508; [0079-0080]); and

evaluating the received usage metrics to determine whether the particular stored object is stored in an appropriate location, and moving the particular stored location if not ([0080]).

5. As per claim 2, Terretta teaches the method according to claim 1, wherein the usage metrics are received from a server ([0076], wherein the health monitor periodically pulls status from servers).

6. As per claim 3, Terretta teaches the method according to claim 1, wherein the received usage metrics are gathered by a system responsible for storing the particular stored object ([0079-0080], the usage metrics are gathered by the metaswitch 500, and data store is further manipulated by the switch).

7. As per claim 11, Terretta teaches the method according to claim 1, wherein the usage metrics are received in response to a query for remotely-stored usage metric information ([0076]).

8. As per claim 16, Terretta teaches the method according to claim 1, wherein the usage metrics are expected popularity values ([0080]).

9. As per claim 17, Terretta teaches the method according to claim 16, wherein the expected popularity values are provided by a user ([0080], wherein popularity values are provide by the amount of user access).

10. As per claim 20, Terretta teaches the method according to claim 1, further comprising steps of:  
gathering usage metrics by a server ([0075]); and  
sending the gathered usage metrics from the server ([0076]); and  
wherein the received usage metrics are those sent from the server ([0076]).

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11. As per claim 21, Terretta teaches the method according to claim 20, wherein sending the gathered usage metrics from the server operates in response to a triggering event ([0075-0076], triggering event being the query).

12. As per claim 22, Terretta teaches the method according to claim 21, wherein the triggering event comprises expiration of a timer ([0076]; period polling inherently implies a timer).

13. As per claim 23, Terretta teaches the method according to claim 21, wherein the triggering event comprises exceeding a threshold ([0076], after a time threshold, the system polls the servers again).

14. As per claim 24, Terretta teaches the method of claim 21, wherein the triggering event comprises receiving a query for the usage metrics ([0075-0076]).

15. As per claim 25, Terretta teaches the method according to claim 20, wherein gathering usage memories by a server further comprises gathering the usage metrics by analyzing an access log ([0076], wherein a change in status of server health is affected when there are multiple occurrences of same issue, the polled information would be stored in a log/list for analysis at a later time).

16. As per claim 26, Terretta teaches the method according to claim 20, wherein gathering usage memories by a server further comprises gathering the usage metrics by tracking access requests at the server ([0075-0076]).

17. As per claim 27, Terretta teaches the method according to claim 1, wherein the usage metrics are expressed as a mnemonic ([0076]).

18. As per claim 28, Terretta teaches the method according to claim 1, wherein the usage metrics are expressed as a scaled number ([0076], moving average of metrics).

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19. As per claim 29, Terretta teaches the method according to claim 1, wherein the usage metrics are expressed as a percentage of access requests ([0076]).

20. As per claim 30, Terretta teaches the method according to claim 1, wherein the usage metrics are expressed as an actual number of access requests ([0079-0080]).

21. As per claim 31, Terretta teaches the method according to claim 1, wherein the usage metrics are expressed as a ranking ([0080]).

22. As per claim 32, Terretta teaches a system for efficiently serving content in a distributed computing environment using a network attached storage (NAS) system, comprising:

means for receiving, by a component of the NAS system, usage metrics for a particular stored object ([0075], wherein the health metrics based on usage information is being monitored by item 508; [0079-0080]); and

means for evaluating the received usage metrics to determine whether the particular stored object is stored in an appropriate location, and for moving the particular stored location if not ([0080]).

23. As per claim 33, Claim 33 is rejected for the same reasons as rejection to claim 20 above.

24. As per claim 34, Claim 34 is rejected for the same reasons as rejection to claim 32 above.

25. As per claim 35, Claim 35 is rejected for the same reasons as rejection to claim 20 above.

***Claim Rejections - 35 USC § 103***

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in

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section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claim 4-6, 9, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terretta et al. (hereinafter Terretta), US 2001-0027491, in view of "Using Document Features to Optimize Web Cache", Koskela et al. (hereinafter Koskela), 2001

30. As per claim 4, Terretta does not explicitly teach the method according to claim 1, wherein the usage metrics are encoded in a Hypertext Transfer Protocol message header.

In a similar system, Koskela teaches optimization of web caches through determining values for each cached web documents, specifically, Koskela teaches wherein the usage metrics are encoded in a Hypertext Transfer Protocol message header (see for example, Abstract, wherein the metrics are estimated from the HTTP response and from HTML structure of the document), in order to measure usage metrics in an HTTP/HTML environment and improve response time (pg 1, lines 1-10).

It would have been obvious to the person ordinary skilled in the art to encode usage metrics in HTTP message header in order to measure usage metrics in an HTTP/HTML environment and improve response time.

8. As per claim 5, Terretta does not explicitly teach the method according to claim 1, wherein the usage metrics are encoded using syntax of a markup language.

In a similar system, Koskela teaches optimization of web caches through determining values for each cached web documents, specifically, Koskela teaches the method according to claim 1, wherein the usage metrics are encoded using syntax of a markup language (pg 3, lines 5-10), in order to measure usage metrics in an HTTP/HTML environment (pg 3, lines 5-10; pg 1, lines 1-10)

It would have been obvious to the person ordinary skilled in the art to encode usage metrics in HTTP

message header in order to measure usage metrics in an HTTP/HTML environment and improve response time.

9. As per claim 6, Terretta does not explicitly teach the method according to claim 5, wherein the markup language is HTML ("Hypertext Markup Language").

In a similar system, Koskela teaches the method according to claim 5, wherein the markup language is HTML ("Hypertext Markup Language") (pg 3, lines 5-10), in order to measure usage metrics in an HTTP/HTML environment and to improve response time (pg 3, lines 5-10; pg 1, lines 1-10)

It would have been obvious to the person ordinary skilled in the art to markup language is HTML in order to measure usage metrics in an HTTP/HTML environment and improve response time.

10. As per claim 9, Terretta does not explicitly teach the method according to claim 6, wherein the syntax comprises a specially-denoted comment

In a similar system, Koskela teaches the above section (see for example, table 1, wherein the HTML tags have values in which Koskela's system is keeping track), in order to monitor system popularity in HTTP/HTML environment.

It would have been obvious to the person ordinary skilled in the art to markup language is HTML in order to measure usage metrics in an HTTP/HTML environment

11. As per claim 18, Terretta does not explicitly teach the method according to claim 16, wherein the expected popularity values are predicted by a content management system

In a similar system, Koskela teaches the method according to claim 16, wherein the expected popularity values are predicted by a content management system (see for example, pg 3, lines 5-15, wherein the values are predicted by the classifier) in order to optimize cache placement (pg 3, lines 5-15).

It would have been obvious to the person ordinary skilled in the art at the time of the invention to predict popularity values in order to optimize cache placement.



12. As per claim 19, Terretta does not explicitly teach the method according to claim 1, wherein the usage metrics are received as meta-data on a file access message.

In a similar system, Koskela teaches the method according to claim 1, wherein the usage metrics are received as meta-data on a file access message (pg 3, lines 5-10, wherein the usage metrics are determined based upon the file access) in order to monitor document popularity in HTTP/HTML environment.

It would have been obvious to the person ordinary skilled in the art to receive meta-data on a file access message in order to measure usage metrics in an HTTP/HTML environment

13. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terretta et al. (hereinafter Terretta), US 2001-0027491, in view of "Using Document Features to Optimize Web Cache", Koskela et al. (hereinafter Koskela), 2001, in view of "How the web works: http and CGI explained", Garshol, 1999.

14. As per claim 7, Terretta does not explicitly teaches the method according to claim 6, wherein the syntax comprises a "META" tag using an "HTTP-EQUIV" attribute syntax.

15. Garshol teaches wherein the syntax comprises a "META" tag using an "HTTP-EQUIV" attribute syntax (see for example, pg 14, lines 25-30 for advantages of remote file settings).

16. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Terretta, Koskela and Garshol because they both dealing with web based information exchange. Furthermore, the teaching of Garshol to allow wherein the syntax comprises a "META" tag using an "HTTP-EQUIV" attribute syntax.

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would improve the identification and setup procedures for Terretta and Koskela's system by providing the appropriate header fields for ease of setup of a remote node.

17. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terretta et al. (hereinafter Terretta), US 2001-0027491, in view of "Using Document Features to Optimize Web Cache", Koskela et al. (hereinafter Koskela), 2001.

18. As per claim 8, Terretta and Koskela does not explicitly teach the method according to claim 6, wherein the syntax comprises a "META" tag using a "NAME" attribute syntax. However, it would have been obvious to include the NAME meta tag within Koskela for the purpose of identification of remote server/clients.

19. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terretta et al. (hereinafter Terretta), US 2001-0027491, in view of "Using Document Features to Optimize Web Cache", Koskela et al. (hereinafter Koskela), 2001, in view of "Form-Based Proxy Caching for Database-Backed Web Sites", Luo et al. (hereinafter Luo), 2001

20. As per claim 10, Terretta and Koskela does not explicitly teach the method according to claim 5, wherein the markup language is XML ("Extensible Markup Language").

21. Luo teaches wherein the markup language is XML (see for example, pg 3, Col. 1, lines 19-24 for the advantages of compatibility in representation).

22. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Terretta, Koskela and Luo because they all deal with information transfer and proxy cache. Furthermore, the teaching of Luo to allow wherein the markup language is XML

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would improve the compatibility for Terretta and Koskela's system by providing XML formats which in essence eliminates format translations.

23. Claim 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terretta et al. (hereinafter Terretta), US 2001-0027491, in view of "Using Document Features to Optimize Web Cache", Koskela et al. (hereinafter Koskela), 2001, in view of "Web-Based Distributed Authoring and Versioning (WebDAV)", Itkonen, 1999.

24. As per claim 12, Terretta and Koskela does not explicitly teach the method according to claim 11, wherein the query uses a WebDAV request.

25. Itkonen teaches wherein the query uses a WebDAV request (see for example, pg 3, lines 25-30).

26. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Terretta, Koskela and Itkonen because they all deal with web based information transfer. Furthermore, the teaching of Itkonen to allow wherein the query uses a WebDAV request would improve the interoperability for Terretta and Koskela's system by providing XML and HTTP extensions to make web authoring widely available to support a broad group of users (pg 3, lines 25-30).

27. As per claim 13, Koskela teaches the method according to claim 12, wherein a response to the WebDAV request specifies usage metric gathered by at least one server (pg 2, lines 35-38).

28. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terretta et al. (hereinafter Terretta), US 2001-0027491, in view of "Using Document Features to Optimize Web Cache", Koskela et al. (hereinafter Koskela), 2001, in view of "Cookies and Protecting Your Privacy", CompuVision, 2001

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29. As per claim 14, Koskela does not explicitly teach the method according to claim 4, wherein the usage metrics are encoded using one or more cookies.

30. CompuVision teaches wherein the usage metrics are encoded using one or more cookies (see for example, pg 1, lines 2-20 for the advantage of overcoming statelessness and creating efficient dynamic webpage interactions).

31. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Terretta, Koskela and CompuVision because they all deal web based information transfer. Furthermore, the teaching of CompuVision to allow wherein the usage metrics are encoded using one or more cookies. would improve the efficiency for Terretta and Koskela's system by providing maintaining an illusion of a session so as to improve the access speed next time the user accesses the same page (pg 1, lines 15-20).

32. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terretta et al. (hereinafter Terretta), US 2001-0027491, in view of "Using Document Features to Optimize Web Cache", Koskela et al. (hereinafter Koskela), 2001, in view of 'Official Notice'.

33. As per claim 15, Terretta Koskela does not explicitly teaches the method according to claim 1, wherein the usage metrics are encoded in a Wireless Session Protocol message header. "Official Notice" is taken that the concept and advantages of providing for Wireless Session Protocol is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include Wireless Session Protocol with Koskela because it would provide for broader service coverage into the realm of wireless networking.

*Conclusion*


34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents and publications are cited to further show the state of the art with respect to method of providing router with subnetwork address pool in a cellular telecommunications network.

- i. US 6711585 Copperman et al.
- ii. US 6094649 Bowen et al.
- iii. US 6351776 O'Brien et al.
- iv. US 6675205 Meadway et al.
- v. "USING META TAG-EMBEDDED INDEXING FOR FIELDLED SEARCHING OF THE INTERNET" – Coombs, Philip INET Conference Aug 30, 1999.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Zhong whose telephone number is (571)272-3946. The examiner can normally be reached on M-F 7:15 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BURGESS, GLENTON B can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
GLENTON B. BURGESS  
SUPERVISORY PATENT EXAMINER  
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May 13, 2005